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SOVIET INDUSTRIAL DEVELOPMENT

NO. 14

SELECTED TRANSLATIONS

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Introduction

This is a serial publication containing selected translations on industrial development in the Soviet Union. This report consists of a translation of an article published in Sovetskoye Gosudarstvo i Pravo (Soviet State and Law).

Certain Problems of State Management
of Technological Progress

Following is a translation of an article by
S. A. Mayevskiy, Moscow, No. 3, March 1960,
pages 34-45.⁷

The decisive requirement for a successful fulfillment of the Seven-Year Plan and creation of the material-technical base of Communism is, as pointed out by the 21st CPSU Congress, a broad introduction of new technology, over-all mechanization and automation of production processes, and specialization and cooperation in all branches of the national economy.*

The Communist Party and Soviet State, taking under consideration the tremendous economic and social importance of technological progress, devote unflagging attention to the organization of such progress. The problems of accelerating technological progress in the Nation's economy had been discussed at the 19th, 20th and particularly 21st Congresses of the CPSU and, in addition, in the last five years they were twice the object of special examination at the Plenary Sessions of the CC CPSU (1955, 1959). The transition to the new forms of the management of industry /establishment of sovnarkhozes/ pursuant to the Law of 10 May 1957 "Concerning the Further Perfection of the Organization of the Management of Industry and Sovnarkhozes has led to a notable improvement in the guidance of technological progress by the State, to the further development of the principle of democratic centralism in the organization of the State's guidance of the technological development of industry.

As applied to the organization of technological progress the principle of democratic centralism postulates the unity of technological policy in the development of all branches of the national economy, and a broad development of local initiative in the perfecting of production on the basis of new technology and omnilateral consideration of local features and possibilities.

The reorganization of the management of industry ac-

*Cf. "Resolution of the 21st Congress of the Communist Party of the Soviet Union Concerning the Report of Comrade N. S. Khrushchev 'On the Target Figures of the Development of the National Economy of the USSR for 1959-1965,'" Gospolitizdat, 1959, page 18.

cording to the territorial principle, coupled with the measures for transferring a large number of enterprises to the jurisdiction of Union republics, has led to a further expansion of the rights of the Union republics in the guidance of economic activity and of technological progress as well, which has found its expression in:

a) Expansion of rights in the field of the planning of the introduction of new technology in the national economy. At present the republic plans for new technology encompass nearly the entire industry, all the enterprises, located on the territory of the concerned Union republic, except for an insignificant number of enterprises under Union jurisdiction;

b) Expansion of rights in the field of the planning of scientific research and design and experimental work, which is related to the transfer of a large number of scientific-research institutes and design and testing organizations to the jurisdiction of the sovnarkhozes;

c) Expansion of rights in the field of the control of the creation and introduction of new technology;

d) Possession of broad powers as to the choice of the forms and methods of management of technological progress.

However, all this expansion of the rights of the Union republics in the organization of technological progress does not signify a weakening of the over-all State control in this field, because the continuous perfection of industry on the basis of new techniques and technology, mechanization and automation of production, and specialization and cooperation, would be inconceivable if not conducted according to a fixed technological policy applied to all branches of the national economy, on the scale of the country as a whole. The authoritative powers of the Union Government in guiding technological progress are intended to ensure the observance of a single technological policy of development in all branches of industry, the utilization of the newest achievements of domestic and foreign science and technology, the organization of inter-branch and inter-republic cooperated deliveries of newly designed machinery, and the control of the execution of the principal measures for introducing new technology as well.

In particular, the solving of these tasks is the purpose of the newly established order of over-all State planning of the creation and introduction of new technology. As is known, prior to the reorganization of the management of industry and construction, the plans of new technology used to be a regular section of the national-economic plans.

However, the drafting of the State-wide plan of new technology had serious disadvantages. The planned measures for designing and introducing new technology into industry

had not always been fully backed by material-technical supplies, which was one of the reasons for their nonfulfillment.

After the conduct of the reorganization of the management of industry and construction, the onus of the work on the drafting of the plans of new technology was transferred to the shoulders of the enterprises, sovnarkhozes and Union republics. The Resolution of the June (1959) Plenum of the CC CPSU states that this measure has justified itself fully, because it has made possible the fullest consideration of the interests of the development of the national economy in the plans of new technology and the mobilization of broad circles of specialists and work innovators as participants in the planning of new technology. At the same time, the Plenum of the CC CPSU disapproved of the failure of the national-economic plans to provide for the principal nationally important measures for developing and introducing new technology. Pursuant to the decision of the June Plenum of the CC CPSU, the principal tasks in the field of the creation and introduction of new technology, the tasks of nationwide importance, should be an organic component part of the national economic plans. The State /national economic/ plans should also set targets for the Union republics with regard to increasing the output of new types of equipment and discontinuing the production of obsolete machines. The measures for creating and introducing new technology should be given priority in financing and in backing with material-technical resources. Undoubtedly, such planning of the creation and introduction of new technology offers great opportunities for following a single technological policy in all branches of the national economy, and this provides a reliable guarantee of successful technological progress.

At the same time, the introduction of the new order of the State-wide planning of the creation and introduction of new technology engenders the problem of the relationship between the State-wide plan and the new-technology plans of the Union republics, sovnarkhozes, Ministries, and enterprises. The essence of this problem consists in the proper determination of the role in a given plan of the measures for developing and introducing new technology; in this connection it is to be kept in mind that, e.g., the State plan should include measures of an actually inter-republic importance, that the State legislation should not be overburdened with norms at the expense of republic legislation, etc. A correct solution of this problem is an important prerequisite for the practicality of the plans of new technology.

* * *

The guidance of technological progress is part and parcel of economic activity, and it is inseparably tied to the activities of the organs of State power and administration of the management of the national economy of the USSR.* At the same time, after the reorganization of the management of industry and construction at present there has arisen a system of organs of State administration especially designed for organizing constant technological progress. The following should be included among these organs of State administration in the USSR: the State Scientific and Technical Committee of the Council of Ministers USSR, the State Committee on Automation and Machine Building of the Council of Ministers USSR, the Branch-Of-Industry State committees of the Council of Ministers USSR the Committee on Inventions and Discoveries, and the Committee on Standards, Measures and Measurements of the Council of Ministers USSR.

The creation of a system of organs of State administration concerned with the organization of technological progress, coupled with the changes in the organization of technological service as ensuing from the reorganization of the management of industry and construction according to economic administrative rayons and the perfection of operating methods, represents another perfection of the organization of the management of the technological development of industry. The establishment of special organs for solving the most important problems of technological progress provides considerable opportunities for an operative guidance of technological progress.

At the same time, the creation of the system of organs for the guidance of technological progress also imposes on these organs a great responsibility for a proper conduct of activities, for such a division of functions as would exclude duplication, parallelism and relics of bureaucratism.

In this connection, the questions of the legal status of the above-mentioned organs acquire major importance.

The State Technical and Scientific Committee of the Council of Ministers USSR is a Federal organ established pursuant to Article 19 of the Law of 10 May 1957 for studying the achievements of domestic and foreign science and technology and the pace-setting production experience, and for propagandizing broadly these achievements, publishing

*Cf., e. g., Point 19 of the Statute of the Council of National Economy /Sovnarkhoz/ of the Economic Administrative Rayon ("SP SSSR" /Legislative Record USSR/, No. 12, 1957, page 121), and Paragraph "z," Point 3, of the Statute of the Glavgaz SSSR /Main Administration of the Gas Industry/ ("SP SSSR," No. 16, 1957, page 160).

scientific and technical literature and supervising the development and introduction of new technology into the national economy. One of the principal tasks of this Committee is to coordinate the most important inter-branch and inter-republic activities in the field of the creation and introduction of new technology.

From the nature of its functions and privileges, the State Scientific and Technical Committee of the Council of Ministers USSR cannot be regarded as an organ with broad powers, because its functions are confined to the aspects of ensuring technological progress, and neither can it be regarded as a branch organ, because its functions concern all branches of the national economy. In neither sense does it carry out the entire complex whole of functions pertaining to economic management: it is a functional organ of the governmental administration of the USSR. It is in this capacity that it enters into relations with other State organs, except for the subordinate organizations -- publishing houses, institutes of scientific and technical information, etc.

During a discussion of the theses of the report of N. S. Khrushchev "On the Further Perfection of the Organization of the Management of Industry and Construction," it was suggested that the privileges of the Engineering-Technical Committee (State Scientific and Technical Committee of the Council of Ministers USSR) should be broadened. This opinion is incorrect and it contradicts the decision of the 17th CPSU Congress to enjoin the functional organs from directing the subordinate links through the leading production-territorial organs responsible for a given field of work as a whole and endowed with rights and duties concerning absolutely all problems of the management of their subordinate organizations. The responsibility for the development and introduction of new technology into industry is borne by scientific-research organizations, enterprises, sovnarkhozes, and Ministries and agencies of the USSR. All these State organs have all the rights necessary for an omnilateral management of this activity. The State Scientific and Technical Committee of the Council of Ministers USSR is called upon solely to promote through definite procedures a successful activity of the above-mentioned organs of State administration, and hence the authorizing of the said Committee to take any measures touching upon the economic activities of these organs without the due consent of these organs themselves would lead to the major shortcomings inherent in "functionalism."

However, it appears expedient to broaden the rights of the State Scientific and Technical Committee in the field of the control of the principal measures for creating and introducing new technology within the framework of the State

plan. This would not in any way infringe upon the operative independence of enterprises and organizations, while at the same time it would make it possible to make the control exercised by the said Committee a more effective weapon in the struggle for technological progress.

A somewhat different position in the system of the organs of State administration is occupied by the State Committee on Automation and Machine Building of the Council of Ministers USSR, established pursuant to the Edict of the Presidium of the Supreme Soviet USSR of 28 February 1959, and the Branch-of-Industry State Committees of the Council of Ministers USSR* which are All-Union organs called upon to ensure the omnilateral development of the principal branches of industry.

It is a characteristic feature of the State Committee on Automation and Machine Building of the Council of Ministers USSR, and of the Branch-of-Industry State Committees as well, that they exercise jurisdiction over scientific-research institutes, design and experimental organizations and pilot enterprises. In this connection, the exercise by the said Committees of the functions of operative management of these organizations causes their legal position to be a distinctive one, compared with the legal position of the State Scientific and Technical Committee of the Council of Ministers USSR. The subordination of scientific-research institutes and design and experimental organizations to the said Committees has made it possible to charge the latter with the responsibility of the direct development of new and improvement of old types of machinery, instruments, means of automation and industrial electronics, new highly productive technological processes, polymer materials, new types of chemicals and products, etc.

Thus, while the State Scientific and Technical Committee of the Council of Ministers USSR conducts its activities regarding the management of technological progress by way of developing and elaborating problems to be decided upon by the Council of Ministers USSR or, besides, by way of providing recommendations and taking organizational measures upon the approval of the concerned agencies. The State Committee on Automation and Machine Building and the Branch-of-Industry State Committees conduct their activities largely on the basis of the method of direct operative management, which they apply in relation to their subordinate

*The State Committees on Defense Technology, on Aviation Engineering, on Radio Electronics, on Chemistry, and on Ship Building, of the Council of Ministers USSR.

scientific-research institutes, design organizations and pilot enterprises.

An examination of the functions of the above-mentioned Committees reveals that they nearly overlap in many allied fields of activity, and are interrelated by close ties which may lead to parallelism and duplication of activities. And while in some cases measures have been taken a priori to obviate this, in other cases no such measures have been taken. In our view, their functions are explicitly branched-out in the field of the Federal planning of the creation and introduction of new technology which has been in its entirety entrusted to the Gosplan USSR jointly with the State Technical and Scientific Committee of the Council of Ministers USSR, the State Committee on Automation and Machine Building of the Council of Ministers USSR, and the Gosstroy USSR, in the field of the guidance of the scientific-research and design-experimental development of new technology, in the field of scientific and technical information and propaganda.*

It appears that the criterion for judging whether a problem falls within the scope of powers of the State Scientific and Technical Committee of the Council of Ministers USSR should be the significance of that problem from both the inter-branch and the inter-republic standpoint. The problem of branch-of-industry significance fall within the jurisdiction of the concerned branch-of-industry Committee. Of course, the jurisdiction of the State Scientific and Technical Committee of the Council of Ministers USSR includes all the problems of inter-republic importance relating to the branches of industry and national economy which lie outside the scope of activities of the State Branch-of-Industry Committees. The subsequent actual promulgation of this criterion would promote the elimination of duplication in the activities of the State Committees, and at the same time it would promote an operative examination of the problems of new technology by the appropriate organs.

The expansion of the rights of Union republics with regard to the management of the technological development of industry would increase their responsibility for the

*Cf. Statute of the State Committee on Automation and Machine Building of the Council of Ministers USSR, confirmed by the Ordinance of the Council of Ministers USSR of 12 October 1959 ("SP SSSR," No. 18, 1959, page 150); Ordinance of the Council of Ministers USSR "Concerning the Measures for Improving Scientific and Technical Information, Propaganda and Publishing Activity in Industry, Construction and Transport," of 18 April 1959 ("SP SSSR," No. 7, 1959, page 46).

state of technological progress in the industry located on their territory, and it would provide these republics with considerable opportunities for improving the organization of the State guidance of the creation and industrial introduction of new technology.

The further improvement of the organization of the State guidance of technological progress in industry by the Union republics is the main purpose of the establishment of /republic/ scientific and technical committees as organs of the /republic/ councils of ministers and sovnarkhozes. The legal foundation for establishing the scientific and technical committees under the councils of ministers of Union republics was Article 19 of the Law of 10 May 1957 and the corresponding laws of the Union republics concerning the further perfection of the organization of the management of industry and construction as adopted in 1957, and -- for establishing these committees under the sovnarkhozes -- the Law of 10 May 1957 and the ordinances of the councils of ministers of Union republics. All these scientific and technical committees operate pursuant to their statutes as confirmed by the councils of ministers of Union republics.

Until 1957 the Union republics had lacked special organs which could be charged with the functions analogous to those exercised by the former Gostekhnika SSSR /State Committee for New Technological Methods of the Council of Ministers USSR/. This was only proper, because such an order had corresponded with the coeval system of the management of industry by Union-republic Ministries, at a time when the Gostekhnika SSSR had the opportunities for coordinating the activities of these industrial Ministries in the field of the management of technological progress. The transition to the management of industry according to the territorial principle /establishment of sovnarkhozes/ and the broadening of the powers of Union republics in the management of industry have caused the need for establishing special organs for directing the work on the organization of technological progress in Union republics. Management exercised by a single Federal organ would have been insufficiently concrete and operative, compared with the large number of sovnarkhozes which exercise the same complex whole of rights and functions in relation to their subordinate enterprises and organizations as used to be exercised by the Ministries until the reorganization of management in 1957.

The principal tasks and functions of the scientific and technical committees of the councils of ministers of Union republics and of the sovnarkhozes are specified in

republic legislation fundamentally in the same manner as that in which they were specified in the Federal legislation concerning the State Scientific and Technical Committee of the Council of Ministers USSR. The differences existing in their functions occur because in certain republics the jurisdiction of these committees embraces not only information institutes but also scientific-research and design institutes (e. g., in the Kazakh SSR) in relation to which the committees exercise the entire complex whole of functions and rights and the duties involved in operative management.

Considerable differences exist in the powers granted to the scientific and technical committees with respect to the exercise of functions and the attainment of the purposes for which they were established. In certain republics the decisions of the scientific and technical committees of the republic councils of ministers on problems concerning the powers of these committees are mandatory. Thus, in Point 8 of the Statute of the State Scientific and Technical Committee of the Council of Ministers Lithuanian SSR the mandatory nature of the decisions of that Committee is restricted solely by the requirement of approval by the Gosplan Lithuanian SSR.* The Statute of the State Scientific and Technical Committee of the Council of Ministers Armenian SSR specifies that the decisions of that Committee concerning the problems of the development and introduction of new technology into the national economy are mandatory for the Sovnarkhoz of the Armenian SSR, ministries and agencies of the Armenian SSR, and enterprises, project-design organizations, higher educational institutions and scientific research institutes (inclusive of the engineering-type organizations of the Academy of Sciences Armenian SSR).

It appears that such a broadening of the rights of the scientific and technical committees of Union republics in relation to organizations which are not directly under their jurisdiction cannot be recognized as pertinent. The scientific and technical committee as a functional organ of the council of ministers is inherently not called upon to adopt decisions on the problems of development and introduction of new technology whenever such decisions constitute interference in the operative-economic activities of enterprises and organizations. Such decisions may and should be adopted only by that organ of the State which exercises management over the enterprise or organization, which is charged with responsibility for continually increasing the technolog-

*Cf. "Vedomosti Verkhovnogo Soveta i Pravitel'stva Litovskoy SSR" News of the Supreme Soviet and Government of the Lithuanian SSR, No. 6, 1959, page 57.

ical level of production and is endowed with the entire complex whole of rights for an operative management of its subordinate enterprises and organizations. Such an organ is the sovnarkhoz, the ministry, the Government agency, and the management of a given enterprise or institution.

The State scientific and technical committees of the councils of ministers of Union republics are organs of these councils of ministers and are subordinate to said councils of ministers alone, although coordinating their activities with the State Scientific and Technical Committee of the Council of Ministers USSR.

The article of S. A. Orudzhev "Improve the Apparatus of the Management of Industry" offered the opinion that the existence of scientific and technical committees in the Union republics on whose territory exists only a single sovnarkhoz is entirely unnecessary and that the functions of these committees should be transferred to the technological boards of the sovnarkhozes.* In our view, such a standpoint is erroneous.

As organs of the councils of ministers of Union republics, the scientific and technical committees study, generalize and disseminate the achievements of domestic and foreign science and technology and the pace-setting production experience in all branches of the national economy of the Union republics, regardless of the administrative jurisdiction of the enterprises and organizations of various branches of industry and agriculture. These committees elaborate the principal developmental trends of technology in all branches of the national economy of their republics, on assisting enterprises, sovnarkhozes and, particularly, republic gosplans in determining the scientific and technical level to be kept in mind when planning the development of the national economy as a whole and in individual enterprises. The most important function of the State scientific and technical committees of the republic councils of ministers is to exercise control of the fulfillment of the plan of the development and introduction of new technology into the national economy of the republics, and of the fulfillment of the tasks of Federal and republic governments in the field of the creation and industrial introduction of new technology. Such a function cannot be transferred to the sovnarkhoz technological board, because the scope of jurisdiction of that board does not encompass the entire local industry, the entire industry under the jurisdiction of the republic ministries and agencies, and agriculture as well.

*Cf. "Sovetskoye Gosudarstvo i Pravo," No. 1, 1959, pages 31-32.

As organs of the councils of ministers of Union republics, the scientific and technical committees can mobilize for working out complex and major problems numerous organizations, scientists, and experts regardless of their administrative jurisdiction. The sovnarkhozes are deprived of this opportunity.

The scientific and technical committees under the sovnarkhozes have a status which prevents them from exercising the omnilateral management of the technological development of the national economy of a republic, and they cannot exercise an integrated supra-agency control of the creation and introduction of new technology, and neither can they exercise the coordination of the activities of all agencies in this field. Practice shows that even in the cases in which a sovnarkhoz scientific and technical committee exists in a republic having a single sovnarkhoz only, it essentially occupies the status of an organ of the council of ministers of the concerned Union republic. The Presidium of the Supreme Soviet of the Belorussian SSR has, by its Edict of 22 March 1958, abolished the State Scientific and Technical Committee of the Council of Ministers Belorussian SSR, on transferring its functions to the sovnarkhoz. In its ordinance of 14 April 1958 the Council of Ministers Belorussian SSR has established the Scientific and Technical Committee of the Sovnarkhoz Belorussian SSR and confirmed its Statute. Article 1 of that Statute specifies that: "The Scientific and Technical Committee is an organ of the Sovnarkhoz Belorussian SSR ensuring the management of enterprises with respect to the development of technology, introduction of achievements of science and engineering into the national economy."* It is utterly obvious that, being an organ of the sovnarkhoz, this scientific and technical committee cannot ensure the introduction of new technology into the republic's national economy for the simple reason that that economy is not entirely under the jurisdiction of the sovnarkhoz -- and the same also applies to industry. Thus, in 1958 the share of the industry under the jurisdiction of the Sovnarkhoz Belorussian SSR in the gross industrial product of the industry under the jurisdiction of the Council of Ministers Belorussian SSR had amounted to 67 percent.

*"Sobraniye Zakonov i Ukazov Prezidiuma Verkhovnogo Soveta BSSR, Rasporyazheniy i Postanovleniy Soveta Ministrov BSSR" /Record of the Laws and Edicts of the Presidium of the Supreme Soviet Belorussian SSR and of the Decrees and Ordinances of the Council of Ministers Belorussian SSR/, No. 4, 1958, page 102.

It is understandable that the entire remaining industry, providing 33 percent of the gross industrial product of the industry under the Council of Ministers Belorussian SSR, could not remain outside the scope of activities of the scientific and technical committee, and therefore the Council of Ministers Belorussian SSR established, in Article 2 of said Statute, as one of the main tasks of the scientific and technical committee, the technological management of branch-of-industry boards and enterprises and, as well, of the scientific-research, design and experimental institutions and organizations of the Sovnarkhoz Belorussian SSR, Belpromsovet /Belorussian Industrial Council/, and oblast executive committees, with respect to ensuring the introduction of new technology into industry and implementing the State plans of industrial output. Commensurately, the Scientific and Technical Committee of the Sovnarkhoz Belorussian SSR was left with the right of assigning the duty of the conduct of work on individual aspects of the development and introduction of new technology also to the industrial boards of the oblast executive committees, the Industrial Division of the Minsk Municipal Executive Committee, and the Belpromsovet. The extension of the functions and privileges of this Committee to apply also to the enterprises outside the jurisdiction of the Sovnarkhoz Belorussian SSR essentially transforms this Committee into an organ of the Council of Ministers Belorussian SSR. Thus there exists a contradiction between the status of the Scientific and Technical Committee as an organ of the Sovnarkhoz Belorussia SSR and its functions and privileges which are of a nature inherent to an organ of the Council of Ministers.

Hence, also, it is proper and pertinent to determine the role of the scientific and technical committee in the system of the organs of State administration in the Union republics having only a single sovnarkhoz solely as that of an organ of the council of ministers in such republics.

The reorganization of the management of industry and construction pursuant to the Law of 10 May 1957 and the corresponding laws of the Union republics had signified not only a remolding of the system of the organs of the management of industry and construction but also a radical alteration of the forms of operation of these organs. The fundamental trend in the reorganization of these forms of operation is the broadest possible enlisting of the laboring masses as participants in the management of economic activity and, particularly, in the organization of technological progress.

At the Seventh Session of the Supreme Soviet USSR, during the fourth convocation, on 7 May 1957, N. S. Khrushchev declared that: "I think that if the work on introducing new

technology is conducted without the participation of work innovators, inventors and rationalizers, and scientific research workers as well, then our situation in this field will not change at all."*

The promulgation of the Law of 10 May 1957 has been followed by the appearance of many new forms of enlisting the participation of scientists, engineers, and work innovators in the management of the technological development of the national economy. Such new forms are, in particular, the commissions and teams of the scientific and technical committees.

The State Scientific and Technical Committee of the Council of Ministers USSR and the State scientific and technical committees of the councils of ministers of Union republics were left the right of enlisting, upon the approval of the concerned organizations, the participation of scientists, engineers, technicians, and work innovators in the permanent and interim commissions, groups and team concerned with working out individual problems of the development and introduction of new technology into the national economy.**

Utilizing this right, the committees conduct their activities with the support of a large number of highly skilled experts, scientists, engineers, and technicians from enterprises, scientific-research organizations, sovnarkhozes, and other institutions. The State Scientific and Technical Committee of the Council of Ministers USSR, on having, in particular, considered the fundamental trends of development of technology and the major inventions which have not been sufficiently introduced in industry, had organized in 1958 over 100 commissions and teams and enlisted the participation of approximately 2,500 persons in their

*N. S. Khrushchev, "On the Further Perfection of the Organization of the Management of Industry and Construction," Gospolitizdat, Moscow, 1957, page 43.

**Cf., e.g., Point "b," 5, of the Statute of the State Scientific and Technical Committee of the Council of Ministers Moldavian SSR ("SZ Moldavskoy SSR, Ukazov Prezidiuma Verkhovnogo Soveta i postanovleniy Soveta Ministrov Moldavskoy SSR" [Collection of Laws of the Moldavian SSR, Edicts of the Presidium of the Supreme Soviet and Ordinances of the Council of Ministers Moldavian SSR], No. 3, 1958, page 56), etc.

activities.*

In September 1959 the State Technical and Scientific Committee of the Ukrainian SSR had set up 17 commissions for handling alone the drafting of proposals and measures for incorporation into the national economic plan for 1960, and for the seven-year period. Altogether, at that time, 1,500 scientists and experts from various branches of the national economy had been active in the permanent and interim commissions of that Committee.**

Permanent and interim commissions are set up under the scientific and technical committees to draft proposals concerning the principal technical problems and concrete aspects of the introduction of new technology, whose solution will make it possible to eliminate bottlenecks in individual branches of industry and to obtain a considerable economic effect. The legal status of these permanent and interim commissions is such that they are consultative organs of the State scientific and technical committees, occupying approximately the same position as that occupied by the technical and economic councils of the sovnarkhozes.

These commissions are a most flexible legal form of enlisting the participation of workers in the struggle for developing and introducing new technology. The membership of a commission is handpicked according to the problem which it is to work on. As for the membership of the technical and economic council of a sovnarkhoz, on the other hand it is subject to prior confirmation. And although the said council operates through its sections delegated to examine problems concerning individual branches of industry, it cannot be regarded as being as competent as a commission of a State scientific and technical committee. This is also to be explained by the fact that the activities of the technical and economic council of a sovnarkhoz are confined to the boundaries of the concerned economic administrative rayon, whereas the commission of a scientific and technical committee include experts from any enterprise and organization regardless of its administrative jurisdiction.

The enlisting of broad masses of experts in the activities of the permanent and interim commissions is of great im-

*Cf. "In the State Scientific and Technical Committee of the Council of Ministers USSR" ("Promyshlenno-Ekonomicheskaya Gazeta" [Industrial and Economic Gazette], 21 Jan 59)

**Cf. Valuyev, V. "The Main Thing -- Practical Assistance to Enterprises," ("Promyshlenno-Ekonomicheskaya Gazeta," 20 Sep 59)

portance not only to improving the activities of the apparatus but also to making them more economical.

Practice indicates the great viability and effectiveness of the activities of the commissions of scientific and technical committees. Thus, a commission of the State Scientific and Technical Committee of the Council of Ministers Ukrainian SSR has drafted measures for introducing progressive mining systems involving the mass crushing of ore and perfecting the mining systems in every mine administration in the Krivoy Rog Basin. The materialization of the Commission's recommendations which have been accepted by the Dnepropetrovskiy Sovnarkhoz and are being introduced, will save approximately 70-80 million rubles annually. Many other such examples could be cited.

To introduce industrially the newest achievements of science and technology in individual enterprises, the scientific and technical committees set up teams and groups. The State Scientific and Technical Committee of the Council of Ministers Estonian SSR has organized a team of members of the Committee and of the Estonian Sovnarkhoz and of workers from the "Kekhra" Combine, for introducing a new technology of high-yield production of cellulose pulp at that Combine. That team has completed its work successfully. Labor productivity at the "Kekhra" Combine has since increased by 12 percent, and the annual savings yielded by the introduction of the new technology total about three million rubles against expenditures of 400,000 rubles.* Not infrequently, teams and groups are set up after the commissions themselves complete individual stages or all of the work. This may be exemplified by the activities of the team for the production of cryolite from waste gases at the Odessa Superphosphate Plant.**

The membership of a team or group includes experts from the enterprise at which the team or group will operate, as well as experts from other enterprises and scientific-research institutes. This form of enlisting the participation of workers in the organization of technological progress has undergone extensive development in the Union republics.

*Cf. Neyman, A. "With the Aid of the Committee's Teams," ("Promyshlenno-Ekonomicheskaya Gazeta," 30 Jul 1958)

**Cf. "In the State Scientific and Technical Committee of the Council of Ministers USSR" ("Promyshlenno-Ekonomicheskaya Gazeta," 21 Jan 59)

A major role in the cause of intensifying the creative activity of workers and broadly enlisting the participation of the giant army of engineers, technicians and workers in the creation and introduction of new technology in industry belongs to the omnilateral utilization of the principle of material interestedness. This principle serves as the basis for the currently observed system of granting bonuses to workers of the machine building industry for the development and introduction of new technology, based on the Type Statute confirmed by the Council of Ministers USSR in 1956. The existing system of bonuses for the development and introduction of new technology has played a great role in the acceleration of technological progress in machine building. Practice has corroborated the pertinency and viability of such fundamental postulates of the existing system of bonuses for the development and introduction of new technology as the granting of bonuses, on taking into account the economic effect and the degree and time of mastering of the production of new machinery (Stage by stage) as well.

However, this system exhibits major drawbacks, and besides, and what is most important, in connection with the transition to the new forms of management of industry, this system has become obsolete and is not commensurate with the new tasks of technological progress.

The June (1959) Plenum of the CC CPSU has correctly pointed out that in the practice of economic activity little use is as yet made of the principle of the material interestedness of the workers, engineers and technicians in enterprises, scientific-research experts, and designers and draftsmen, in the creation and industrial introduction of new technology. One important way of increasing the material interest of the workers of industry and of scientific-research and design organizations in the technological improvement of industry is further to reform the system of granting bonuses for the development and introduction of new technology.

The need for improving the existing bonus system was backed by many participants in the discussion held on the pages of the "Promyshlennno-Ekonomicheskaya Gazeta." In our opinion, the perfection of the existing bonus system should consist primarily in extending its applicability.

This signifies, first, that this system should be introduced in all branches of industry, and in all scientific-research and project-design organizations as well, because technological progress is determined by the technological perfection of all branches of industry and not just of the machine-building branch alone, even though it is the crucial one. Such a measure will make it possible to enlist in the

perfection of production on the basis of new technology the participation of a large number of workers, engineers and technicians from industry and scientific-research institutes and project-design organizations who have not hitherto been provided with any material incentives for developing and introducing new technology into industry. Thus, in the Kuybyshevskiy Economic Rayon machine builders, who in 1958 had provided 73.3 million rubles in savings by introducing new technology, received more than three million rubles in bonuses, while the collectives of the other enterprises, including those of the petroleum or chemical industry, who had assured a similar profit in the amount of 82 million rubles, had received no such incentives at all.*

Second, it is necessary to expand the circle of persons eligible to receive bonuses for developing and introducing new technology by including among these persons all those who are to any extent participating in the work on the creation and introduction of new technology (naturally, the size of the bonus should primarily hinge on the degree of such participation).

Third, the system of granting bonuses for the creation and introduction of new technology should apply also to the modernization of existing equipment, which will provide material stimuli for accelerating the conduct of such modernization in enterprises, i. e., for solving one of the most important goals set by the June Plenum of the CC CPSU, considering also that the modernization of equipment ensures a rapid rise in labor productivity at lower expenditures of material means.

One of the shortcomings of the existing bonus system is that the size of a bonus is not determined a priori and that the workers who develop and introduce new technology do not know in advance when are they to expect a bonus and how much it will be; this restricts the development of their material interestedness. It is necessary to eradicate this shortcoming and to introduce a procedure at which the economic effectiveness, size, and time of payment of bonuses would be determined in advance while confirming the plans of new technology. Any deviations that may occur in the fulfillment of these plans would then not be essential, and such a procedure would increase the material interestedness of workers and promote a prompt payment of bonuses.

In the practice of the application of the existing

*Cf. Shershnev, M., and Krol, M. "Evaluate According to Results" ("Promyshlennno-Ekonomicheskaya Gazeta," 11 Oct 59).

bonus system, the commensurateness of the size of a bonus with the degree of participation of workers in the development and introduction of new technology is not assured. Thus, at the Khar'kov Tractor Plant the average size of the bonuses for the development and introduction of new technology paid in 1957 and in the first half of 1958 to the shockworkers was about 4,000 rubles, while the designers and technologists received only 300 rubles apiece.* Obviously, the scope of discretion left to the plant management in determining the size of bonuses should be maximally curtailed, so as to assure priority for those directly engaged in developing and introducing new technology.

A major flaw of the existing system of granting bonuses for the development and introduction of new technology into industry is the absence of any organic relationship with the other bonus systems, in particular with the bonus system established by the Ordinance of the CC CPSU and Council of Ministers USSR "Concerning the Measures for a Resolute Introduction of Order Into the Granting of Bonuses to the Shockworkers, Engineers, Technicians and White-Collar Workers of the National Economy of the USSR," of 2 July 1959. Pursuant to that Ordinance, shockworkers, engineers, technicians, and white-collar workers may receive bonuses for fulfilling the plan of cutting production costs, and, in certain branches of industry, in addition, bonuses for overfulfilling the plan of output even in the cases in which the plan of new technology is not fulfilled. Such a situation does not, of course, stimulate in any way the fulfillment of the plan of new technology. It would be expedient to establish a procedure analogous to that stipulated by the same Ordinance of the CC CPSU and Council of Ministers USSR with respect to the granting of bonuses for the fulfillment of the plan of cutting production costs, upon the condition of fulfilling the plan of output in the stipulated variety and volume and the plan of labor productivity and, moreover, the targets for delivering products to enterprises in other economic administrative rayons, and for cooperated deliveries and deliveries for nationwide needs. It would be expedient to make the fulfillment of the plan of new technology a mandatory requirement for granting bonuses for the fulfillment of the plan of cutting production costs and the overfulfillment of the plan of output.

*Cf. Fofanov, I. "On the Stimuli for an Accelerated Development of New Technology" ("Promyshlennno-Ekonomicheskaya Gazeta," 24 Jun 59).

The new organization of the State's management of technological development and the new forms of enlisting the participation of workers in this cause, coupled with the perfection of the previously existing such forms, are and will be still more conducive to the advancement of technology along the path of steady progress.

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